

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A process for the conversion of an olefin in a reactor, wherein the conversion ~~reaction~~ is the oligomerisation of at least one olefin selected from the group consisting of ethylene, propylene, butenes and amylenes to produce C6 to C15 olefins selected from the group consisting of (i) oligomerisation of an olefin and (ii) alkylation of an olefin with at least one compound selected from the group consisting of aromatic and phenolic compounds, the process comprising continuously passing a feed comprising an olefin and water through a bed of zeolite catalyst under conversion conditions to form a conversion product, wherein the water content of the feed is greater during the initial phase of the process of conversion than at the latter phase of the process of conversion.
2. (Original) The process according to claim 1 in which the water content of the feed is automatically controlled according to an analysis of the composition of the reaction feed.
3. (Original) The process according to claim 2 comprising introducing water into the feed by a water wash.
4. (Original) The process according to claim 3 comprising coalescing the wash water before it is passed to the reactor.
5. (Original) The process according to claim 1 wherein the water content of the feed is controlled by at least one method selected from the group consisting of (a) introducing water into the feed, (b) drying the feed and (c), in the case where a water wash is used, adjusting the temperature of the water wash.
6. (Original) The process according to claim 2 wherein an on-line analyser is provided to determine the composition of the reaction feed as it is fed to the reactor.
7. (Original) The process according to claim 2 in which the analysis of the reactor feed also includes a measure of the concentration of oxygenated components.

8. (Previously Presented) The process according to claim 1 in which the conversion products are separated from unreacted olefins.
9. (Previously Presented) The process according to claim 8 in which the unreacted olefins are recycled to the reactor.
10. (Original) The process according to claim 1 in which the conversion is performed in a tubular reactor.
11. (Original) The process according to claim 1 in which the conversion is performed in a chamber reactor.
12. (Cancelled)
13. (Original) The process according to claim 1 which comprises the oligomerisation of a mixture of C3 and C4 olefins.
14. (Cancelled)
15. (Cancelled)
16. (Previously Presented) The process according to claim 1, wherein the conversion products are desulphurised.
17. (Cancelled)
18. (Currently Amended) The process according to ~~claim 17~~ claim 1 wherein the conversion conditions include a temperature from about 110°C to about 310°C.
19. (Currently Amended) The process according to claim 1 in which the catalyst further comprises a solid phosphoric acid.
20. (Original) The process according to claim 19 wherein the conversion conditions include a temperature from about 200°C to about 300°C.

21. (Previously Presented) The process of claim 1, wherein the content of water in the feed is in the range of 450 to 800 wt ppm and then is reduced to be in the range of 250 to 400 wt ppm.